



Memorandum

To: Potential Bidders on the SWMM Modeling RFP

From: Megan Moir, Steve Roy

Date: August 30, 2013

Re: ADDENDUM #1

This addendum modifies the Combined Sewer H/H Model RFP dated August 16, 2013 as follows:

REVISED PROPOSAL DEADLINE:

The proposal deadline has been extended by one (1) week to Friday, September 13, 2013 at 2 PM.

RESPONSE TO QUESTIONS SUBMITTED BY THE 8/28/13 DEADLINE:

1. Are you anticipating a project that is mostly "refinement" of the M&E characterization or more of a "re-do" designed to take advantage of more current data including that generated thru the recent mapping work completed by Weston and Sampson?
 - a. The intent of this work is to construct a new model that most closely represents our network as it exists today. We expect it to incorporate new GIS information, sewer separation work, and land use changes. We provided M&E data as a tool to lessen the learning curve.
2. Will the primary application of the model continue to be to evaluate the performance of the system in response to specific rainfall events (e.g., 1-year and 10-year storms), which can result in over-design, or would the City interested in continuous simulation?
 - a. Both. PCSWMM can run either type of simulation with accurate results provided the input parameters are accurate and the model has been calibrated using actual rain event data. In our experience the single largest variable to runoff generation is connected impervious. Calibration using rain/response data will help with this variable.
3. Other than system overflows, what are some of the City's concerns that the model should be capable of addressing? For example, the 1986 M&E report mentions past flooding issues and the RFP mentions climate change. Will a primary application of this model be flooding evaluation - for both current conditions and future development/climate change scenarios? What about capacity assurance? O&M planning? Capital improvements?
 - a. All of the above. The model will be used to generate solutions for current and projected flooding issues, look for hydraulic restrictions, look for areas (if possible) to temporarily attenuate combined sewage, remove stormwater from the combined system, and look at future treatment plant options to reduce the frequency of bypasses.

4. The existing SWMM model does not represent every system element, is this a goal of the expanded modeling effort?
 - a. Yes. As stated above, the intent of this work is to construct a new model that most closely represents our network as it exists today.
5. What is the scope for flow monitoring (what/where)? Will the consultant be responsible for the installation and operation of the flow meters? Regardless, will there be an opportunity to provide input to its design from a modeling perspective?
 - a. Perhaps as the model is being constructed the optimum locations for flow meter installations will become clearer. We do know right now that we need accurate flow information in the Main Street/S. Winooski Ave/King collection system, Manhattan Drive where our two (2) Main system CSOs are located, perhaps the Ravine sewer and the three (3) major feeds into the plant from Maple, Battery and Pine Streets. M&E used a total of six (6) meters and we suspect that number of meters might work again. Our wastewater group just purchased a Hach FL901 area-velocity meter and offer its use on this project if desired, including installation and removal. Tipping bucket rain gauges are currently located at our Main WWTP and at Gazo Avenue. The consultant would be responsible for the rental/installation of additional meters. We're assuming that this cost will be broken out in the proposal so that adjustments can be made if any of the above assumptions change.
6. Is there a schedule for the work to be completed by? An idea of milestones?
 - a. We're leaving the schedule of work/milestones up to the consultant based upon their availability to devote experienced personnel to this project, however we expect to have a fully functional model completed before Jun 30, 2014. We should consider flow metering this fall to increase the window of opportunity for capturing non-spring baseflow as well as late season storm events. After the new Hach meter has been used for immediate wastewater needs, we can look at installing it in areas mentioned above within the next few weeks to start capturing base and storm flows.
7. What will be the evaluation process for selecting the successful bidder? Is there a scoring breakdown for how proposals will be reviewed?
 - a. No evaluation process has been developed yet. Obviously experience, price, and apparent understanding of the project through the proposal narrative will most likely be evaluation criteria as we develop a ranking chart. We also like seeing things that indicate someone has really given their proposal considerable thought.
8. Is there an SSES study that identifies buildings with roof leader or sump pump connections to the system?
 - a. No.
9. Is there a sewer separation plan identified moving forward?
 - a. There are no separation plans at this time. As you know, separated stormwater requires treatment and there are a limited of tools available in an urban environment. Note that we have successfully installed thirteen (13) infiltration systems to date in the old north end where the soils/groundwater regime are perfect for infiltration in an attempt for our CSOs on Manhattan Drive to meet State CSO policy. We're not there yet as these locations still occasionally discharge under the 2.5"/24 hour storm event.

10. Did the separation program include only surface drainage or did it also include illicit building connections?
 - a. Surface drainage only. Burlington has never done any I/I studies. We are aware that there's a high correlation between annual treatment plant flows and rainfall.
11. Shall we include a cost for PCSWMM in our contract expenses or has the City covered the cost already?
 - a. You will need to add the cost of a license to the proposal if you don't already own it. Our latest versions of PC SWMM Professional costs \$1440 apiece and are licensed to us.
12. Has CCTV inspection been performed on the system? Is a report available of the results?
 - a. There is CCTV data/reports available for a number of areas in the city, usually not in high traffic areas unless there was a reported sinkhole or sewer break. We can schedule our wastewater group to video a number of pipes if deemed critical to the project. We also own a pole-mounted zoom camera that can be used to spot check areas.
13. Have problem areas or system limitations been identified from previous work?
 - a. As mentioned above, the Main Street/S. Winooski Ave/King Street area is a flood zone during heavy rain events, we need better information on the system upstream from Manhattan Drive where our two (2) Main system CSOs are located, and the infamous Ravine sewer are concerns of ours.
14. How many CSO's?
 - a. Two. Manhattan at Park and Manhattan at N. Champlain. Both these sites have cellular-based telemetry that give us date/time/duration of overflows only.